Making Motion Capture Useful

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Making Motion Capture Useful: Welcome and Introduction

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Our View

- **Lots of success stories, lots of horror stories**
- **What will make the differences**
- **No one way to get it right**

Keys to Success

- **Planning is important**
  - Begin with the end in mind
- **It's all about performance**
- **Solve problems sooner, rather than later**
- **Have realistic expectations**
- **There is no one right way, but there are plenty of things to do wrong**

Caveats

- **We definitely come from a specific point of view**
- **We believe in this stuff**
  - We do not want you to have a horror story
    - It gives the entire business a bad name
- **We do not want to start a debate about technology choices**
  - We believe that it is not about fancy hardware, its about making the most effective use of what you have
  - All technologies have their problems
    - Details of problems change, general story remains the same
  - We have focused on things that we know best

Organizational Dilemma

- **Which comes first: the beginning, the middle or the end**
- **Each phase is meant to address issues in other phases**
  - Planning, based on desired end results, to avoid processing problems
  - Processing, to address problems in planning and execution
  - Results, based on what planning, executrion and processing provide
- **Solution:**
  - Begin with overall picture
  - Focus on ends (because this is what matters) and the beginnings (because this is what leads to a happy end)

Detailed Schedule

- **8:30 – 10:00** Prelude: Why is this hard?
- **10:15 – 12:00** The Motion Capture Pipeline.
- **1:30 – 3:00** Technical Details of Processing.
- **3:15 – 5:00** Showcase.

Session 1: Why is this Hard?

- **If I Can See It, Why Can't the Computer?**

  Nicola Ferrier, Prof of Mech Engineering, UW

- **After Sensing, We're Not Done Yet…**

  Mike Gleicher, Prof of Comp Sci, UW

Session 2: The Motion Capture Process

- **It's About Performance, Baby: The Motion Capture Pipeline**
  - From idea to animation
  - What goes in, what comes out, and what happens in between
  - How to plan and execute
  - How to make sure you won't succeed
  - Need to develop ways to insure that their customers have success stories, not horror stories
  - Enough good and bad experiences to know how to increase the likelihood of the former

  Taylor Wilson, CTO House of Moves
  Tom Tolles, President and CEO, House of Moves

Session 3: Technical Details

- **What Happens to Your Data After Its Shot**
  - The issues of capture data processing
  - Some of the basic techniques
  - Words to know, things to watch out for, ...

  Mike Gleicher & Taylor Wilson

Session 4: Some Success Stories

- **Quick! We Need A Dancing Duck!**
  - The pipeline and practical issues for motion re-use in the University of Wisconsin, Madison

    Andrew Gardner, (former) UW student
- **Computer Puppetry: On-Line Performance Animation**
  - What issues arise?
  - How is it different?
  - Some strategies for handling it.

    Sung Yong Shin, Professor, KAIST
- **Showcase**
  - Examples of Successes